

WHAT IS CLAIMED IS:

1. A method for agent-based monitoring of network devices in an enterprise network, comprising:
  - selecting a network device from the enterprise network;
  - 5 selecting an agent template based on the selected network device; and
  - instantiating an agent object based on the agent template, the agent object operable to monitor hardware characteristics of the network device.
2. The method of Claim 1, the network device associated with at least one  
10 Management Information Base (MIB) parameter.
3. The method of Claim 2, the agent object monitoring the network device based on the one or more MIB parameters.
- 15 4. The method of Claim 1, wherein monitoring comprises retrieving information associated with at least a portion of the hardware characteristics of the network device.
- 20 5. The method of Claim 1, each hardware characteristic of the network device selected from the group consisting of:
  - memory usage;
  - chassis temperature;
  - Central Processing Unit (CPU) usage;
  - fan status;
  - 25 module status; and
  - power supply status.
6. The method of Claim 1, further comprising comparing at least one of the hardware characteristics to an associated threshold value.

7. The method of Claim 6, further comprising automatically communicating an alert in response to the hardware characteristic violating the associated threshold value.

5           8. The method of Claim 1, the agent object comprising a parent object and at least one child object, the parent object associated with the network device and each child associated with one of the hardware characteristics.

9. Software for agent-based monitoring of network devices in an enterprise network, the software operable to:

select a network device from the enterprise network;

select an agent template based on the selected network device; and

5        instantiate an agent object based on the agent template, the agent object operable to monitor hardware characteristics of the network device.

10. The software of Claim 9, the network device associated with at least one MIB parameter.

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11. The software of Claim 10, the agent object monitoring the network device based on the one or more MIB parameters.

12. The software of Claim 9, wherein the agent object monitoring  
15        comprises software operable to retrieve information associated with at least a portion of the hardware characteristics of the network device.

13. The software of Claim 9, each hardware characteristic of the network device selected from the group consisting of:

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memory usage;

chassis temperature;

Central Processing Unit (CPU) usage;

fan status;

module status; and

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power supply status.

14. The software of Claim 9, further operable to compare at least one of the hardware characteristics to an associated threshold value.

15. The software of Claim 14, further operable to automatically communicate an alert in response to the at least one of the hardware characteristics violating the associated threshold value.

- 5           16. The software of Claim 9, the agent object comprising a parent object and at least one child object, the parent object associated with the network device and each child associated with one of the hardware characteristics.

17. A system for agent-based monitoring of network devices in an enterprise network, comprising:

memory operable to store information associated with a plurality of network devices in the enterprise network; and

5 one or more processors collectively operable to:

select a network device from the enterprise network;

select an agent template based on the selected network device; and

instantiate an agent object based on the agent template, the agent object operable to monitor hardware characteristics of the network device.

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18. The system of Claim 17, the network device associated with at least one MIB parameter.

19. The system of Claim 18, the agent object monitoring the network  
15 device based on the one or more MIB parameters.

20. The system of Claim 17, wherein the agent object monitoring comprises processors operable to retrieve information associated with at least a portion of the hardware characteristics of the network device.

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21. The system of Claim 17, each hardware characteristic of the network device selected from the group consisting of:

memory usage;

chassis temperature;

25 Central Processing Unit (CPU) usage;

fan status;

module status; and

power supply status.

22. The system of Claim 17, the one or more processors further operable to compare at least one of the hardware characteristics to an associated threshold value.

23. The system of Claim 17, the one or more processors further operable to  
5 automatically communicate an alert in response to the at least one of the hardware characteristics violating the associated threshold value.

24. The system of Claim 17, the agent object comprising a parent object  
and at least one child object, the parent object associated with the network device and  
10 each child associated with one of the hardware characteristics.

25. A method for agent-based monitoring of network devices in an enterprise network, comprising:

selecting a switch from the enterprise network;

selecting an agent template based on the selected switch;

5       instantiating an agent object based on the agent template, the agent object operable to monitor hardware characteristics of the network device based on the agent template;

comparing at least one of the hardware characteristics to an associated threshold value; and

10       automatically communicating an alert in response to the at least one of the hardware characteristics violating the associated threshold value.